CITY OF
BLOOMINGTON
MINNESOTA

Preliminary Report / Feasibility Study
2016 Pavement Management Program (PMP)
Street Reconstruction Project

City Project Number 2016-101

I. Scope of Work

In 1991, the City of Bloomington City Council approved the Bloomington Pavement Management Program (PMP). The program consists of three levels of street maintenance:

- Seal Coat
- Mill and Overlay
- Reconstruction

This report analyzes the feasibility of completing the street reconstruction portion of the PMP. Streets proposed for reconstruction are listed at the end of this report (Appendix Section A). The streets that are proposed have an unstable base and subbase, along with surface irregularities. In general, this work includes streets that have a Pavement Condition Index (PCI) of below 35 on a scale of 100 under the Pavement Management Program rating system and/or have been visually inspected to show the need for reconstruction.

Street reconstruction consists of removing the existing bituminous surface and base materials. If necessary, the street area will be graded to correct any unstable subbase conditions. Grading is also required to prepare for curb and gutter construction, if the street doesn't already have curb and gutter.

All streets that are reconstructed with the PMP are reconstructed to either a 10-ton or 7-ton standard depending on requirements for each street based on traffic volumes. Ten-ton street segments, typically include 6-inches of class 5 rock and 3 layers of 2-inch thick bituminous pavement. Seven-ton street segments typically include 6-inches of class 5 and 2 layers of 2-inch thick bituminous pavement. Both design standards may also include subcuts for poor material and/or a layer of select granular to achieve the design standard requirement.

For streets without existing curb and gutter, concrete curb and gutter will be placed on both sides of the street. Per the City policy, all streets on the 2016 PMP Street Reconstruction project will be reconstructed with new curb and gutter to the standard width of 32 feet, excluding Chalet Road and Old Cedar Avenue. Chalet Road is anticipated

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to vary in width between 32 feet and 36 feet. Old Cedar Avenue is anticipated to vary in width from 26 feet to 44 feet. In addition, due to the wildlife that frequents the Old Cedar Avenue corridor, primarily south of Meadowview Rd, staff is considering a style of curb that differs from the standard B618 curb and gutter. On streets that already have curb and gutter, replacement will be done for segments of the curb and gutter that are damaged, settled, or disrupting drainage.

On February 27, 2012, the City Council approved the City of Bloomington Complete Streets Policy. Per the policy, the Project Engineer will use a Complete Streets checklist to document any potential Complete Streets amenities to include with the project. A couple of items on the check list include checking for ADA compliance issues and checking existing or planned trip generators in the project vicinity that may attract bicyclists, pedestrians, or transit users. Any Complete Streets opportunities will be identified and potentially implemented in the project design.

All of the existing sanitary sewer, water main and storm sewer infrastructure located under proposed reconstruction streets will be evaluated to see if repair or replacement is needed. Since the street will be opened up for the street reconstruction project, any necessary underground utility work will occur with this project. On streets without curb and gutter, additional storm catchbasins and storm sewer pipes may be needed to convey storm water.

At the end of Old Cedar Avenue, watermain will be extended past four properties that do not currently have access to public watermain. The watermain will terminate at a fire hydrant located near the new Old Cedar trailhead parking lot.

On March 16, 2015, the City Council adopted a resolution authorizing the City Engineer to prepare a feasibility report for City Project 2016-501 for the Bloomington Avenue Sanitary Sewer Project. That project includes the construction of new sanitary sewer under Bloomington Avenue South between East 86th Street and East 90th Street; East 86th Street between Bloomington Avenue South and 17th Avenue and on 17th Avenue between East 84th Street and East 86th Street. That feasibility study is underway and it is anticipated that a public hearing to order the project for construction in 2016 will be scheduled in January or February of 2016. The 2016-101 Street Reconstruction Project (PMP) proposes to include 17th Avenue between East 84th Street and East 86th Street for surfacing and curb and gutter work. The sanitary sewer work is part of City Project 2016-501 and is not assessed.

On the west side of Chalet Road, there are preliminary plans to construct a trail from Hyland Ski and Snowboard driveway to the north to Normandale Lake Drive. This trail is proposed to connect the ski chalet with the parking lot across the street from Normandale Lake. Currently there is not a funding source for this work. Staff continues to work on the preliminary design and, if a funding source is determined, will include it in the project. Without a funding source, the Chalet Road trail will be removed.

II. Project Cost Estimate

The estimated project costs are summarized in the table below:

Construction Costs	$7,600,000
12% Contingency	$900,000
26% Design and Project Administration	$2,200,000
Total	***$10,700,000***

A more detailed cost breakdown is attached to this report (Appendix Section B).

III. Project Funding

The project is being funded by a mix of local funds and special assessments with the following breakdown:

Special Assessment	$2,300,000
PIR/GO	$5,800,000
Park Road Grant	$357,000
Chalet Road Trail[1]	$340,000
Storm Water Utility	$1,288,000
Sewer and Water Utility	$530,000
Old Cedar Ave Watermain	$85,000
Total	***$10,700,000***

1. Chalet Road funding is not yet determined. If a funding source is not found, this portion of the project will be removed.

A more detailed funding summary is included after this report (Appendix Section E).

IV. Special Assessments

Based on property value review by City Staff, all properties included in the assessable area and/or the area of notification receive special benefit from the proposed improvements in this report. The special benefit received by each property is in excess of the estimated amount specially assessed to each. The City of Bloomington Assessment Policy will be applied in all instances. For the PMP, four estimated assessment rates are calculated:

Surfacing: 25% rate (single and two family)	$40
Surfacing: 50% rate (all other properties)	$80
Curb and gutter: 25% rate (single and two family)	$25
Curb and gutter: 50% rate (all other properties)	$50

In addition, the four properties at the end of Old Cedar do not currently have access to watermain and have never been assessed for watermain. It is proposed that the watermain costs directly adjacent to these four properties be assessed per the City of Bloomington Assessment Policy. The estimated rate for watermain to these four properties is approximately $64 per adjusted front foot.

The calculations for determining the estimated assessment rates are included at the end of this report (Appendix Section D).

V. Design and Construction Schedule

Plans will be designed by the City of Bloomington Engineering Division. It is proposed that construction will begin in the spring of 2016 and be mostly completed in the fall of 2016, with the potential of some restoration and punchlist items occurring in the spring of 2017.

The reconstruction of Old Cedar Avenue will begin after July 1, 2016 and may take part of the 2016 and 2017 construction seasons to complete. At this time, the Old Cedar Avenue Bridge over Long Meadow Lake Rehabilitation project will also be under construction as well and coordination of schedules will be necessary. In order to minimize economic impacts on the local businesses, minimal street reconstruction operations on Old Cedar Avenue will take place between May 1 and July 1 and the City will encourage the private utilities to follow suit.

Appendix

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A. LIST OF STREETS

Ref. No.	Street	From	To
1	South Bay Circle	South Bay Drive	Terminus North
2	South Bay Drive @ Virginia	Terminus North	Lindstrom Drive
3	South Bay Drive	South Bay Drive @ Virginia	Lindstrom Drive
4	South Bay Drive @ Utah	South Bay Drive	Terminus South
5	Chalet Road	Normandale Lake Drive	Mt. Normandale Drive
6	Drew Avenue	W. 102nd Street	W. 104th Street
7	Ewing Road	W. 104th Street	Canterbury Drive
8	W. 103rd Street	France Avenue	Drew Avenue
9	W. 104rd Street	France Avenue	Drew Avenue
10	Washburn Avenue	W. 86th Street	W. 87th Street
11	W. 87th Street	Washburn Avenue	Vincent Avenue
12	Vincent Avenue	W. 86th Street	W. 87 1/2 Street
13	W. 87 1/2 Street	Xerxes Avenue	Russell Avenue
14	Thomas Avenue	W. 86th Street	W. 88th Street
15	Sheridan Avenue	W. 86th Street	Terminus South
16	Sheridan Avenue	W. 87 1/2 Street	W. 88th Street
17	Russell Avenue	W. 86th Street	Queen Avenue
18	Queen Avenue	W. 86th Street	W. 88th Street
19	Queen Avenue	W. 88th Street	W. 90th Street
20	1st Avenue	W. 84th Street	W. 86th Street
21	E. 85th Street	Nicollet Avenue	2nd Avenue
22	E. 90th Street	12th Avenue	Old Cedar Avenue
23	17th Avenue	E. 84th Street	E. 86th Street
24	Old Cedar Avenue	E. Old Shakopee Road	Bridge

B. COST ESTIMATE SUMMARY

Surfacing	$ 4,203,327.83
Curb & Gutter	$ 1,502,683.53
Old Cedar Park Road	$ 252,976.19
Storm Sewer	$ 912,466.34
Water & Sewer	$ 481,537.94
Chalet Trail	$ 243,611.75
Subtotal	$ 7,596,603.58
Plus 12% Contingency	$ 911,592.43
Plus 26% Engineering Costs, Bonds and Legal Fees	$ 2,212,130.96
Total Construction Cost Estimate	**$ 10,720,326.97**

C. **NON-ASSESSED COST ESTIMATE DETAIL**

Old Cedar Park Road		
Estimated Construction Cost	$	252,976.19
Plus 12% Contigency	$	30,357.14
Estimated Construction Cost	$	283,333.33
Plus 26% Engineering Costs, Bonds & Legal Fees	$	73,666.67
Total Estimated Construction Cost (grant)	**$**	**357,000.00**
Storm Sewer		
Estimated Storm Sewer Cost	$	912,466.34
Plus 12% Contigency	$	109,495.96
Estimated Construction Cost	$	1,021,962.30
Plus 26% Engineering Costs, Bonds & Legal Fees	$	265,710.20
Total Estimated Storm Sewer Cost (Storm Utility Fund)	**$**	**1,287,672.50**
Water & Sewer		
Estimated Water & Sewer Cost	$	376,337.94
Plus 12% Contigency	$	45,160.55
Estimated Construction Cost	$	421,498.49
Plus 26% Engineering Costs, Bonds & Legal Fees	$	109,589.61
Total Estimated Water & Sewer Cost (Sewer and Water Utility Funds)	**$**	**531,088.10**
Chalet Trail		
Estimated Trail Cost	$	243,611.75
Plus 12% Contigency	$	29,233.41
Estimated Construction Cost	$	272,845.16
Plus 26% Engineering Costs, Bonds & Legal Fees	$	70,939.74
Total Estimated Trail Cost (Funding availability to be determined)	**$**	**343,784.90**

D. **ASSESSMENT CALCULATIONS**

Surfacing

Estimated Surfacing Cost	$ 4,203,327.83
Plus 12% Contigency	$ 504,399.34
Estimated Construction Cost	$ 4,707,727.17
Plus 26% Engineering Costs, Bonds & Legal Fees	$ 1,224,009.06
Total Estimated Surfacing Cost	**$ 5,931,736.23**

Estimated Assessment	*Percentage*	*Estimated Assessable Frontage*	*Estimated Rate*	*Estimated Assessment*
Rate Code: 16R	25%	30642	$ 38.64	$ 1,184,006.88
Rate Code: 16O	50%	7734	$ 77.29	$ 597,760.86
Total Assessment		38376	$ 154.57	**$ 1,781,767.74**

Estimated Surfacing Cost less Assessment (PIR/G.O. Cost) **$ 4,149,968.49**

Curb & Gutter

Estimated Curb & Gutter Cost	$ 1,502,683.53
Plus 12% Contigency	$ 180,322.02
Estimated Construction Cost	$ 1,683,005.55
Plus 26% Engineering Costs, Bonds & Legal Fees	$ 437,581.44
Total Estimated Curb & Gutter Cost	**$ 2,120,586.99**

Estimated Assessment	*Percentage*	*Estimated Assessable Frontage*	*Estimated Rate*	*Estimated Assessment*
Rate Code: 52R	25%	17310	$ 25.17	$ 435,692.70
Rate Code: 52O	50%	3752	$ 50.34	$ 188,875.68
Total Assessment		21062	$ 100.68	**$ 624,568.38**

Estimated Curb & Gutter Cost less Assessment (PIR/G.O. Cost) **$ 1,496,018.61**

Old Cedar Watermain

Estimated Old Cedar Watermain Cost	$ 105,200.00
Plus 12% Contigency	$ 12,624.00
Estimated Construction Cost	$ 117,824.00
Plus 26% Engineering Costs, Bonds & Legal Fees	$ 30,634.24
Total Estimated Curb & Gutter Cost	**$ 148,458.24**

Estimated Assessment	*Estimated Total Length of Watermain*	*Estimated Assessable Length of Watermain*	*Estimated Adjusted Front Footage*	*Estimated Rate*	*Estimated Assessment*
Total Assessment	2000	850	990	$ 63.73	**$ 63,092.70**

Estimated Watermain less Assessment (South Loop Development Funds) **$ 85,365.54**

E. **FUNDING SUMMARY**

		Special Assessment	City Assessed Properties	PIR/GO	Park Road Grant[1] (Old Cedar between last house and bridge)	Misc. City Funds	Storm Water Utility Fund	Sewer and Water Utility Fund	Total
1)	Storm Sewer	$ -	$ -	$ -		$ -	$ 1,287,672.50	$ -	$ 1,287,672.50
2)	Sanitary Sewer & Water	$ -	$ -	$ -		$ -	$ -	$ 531,088.10	$ 531,088.10
3)	Old Cedar Park Road	$ -	$ -	$ -	$ 357,000.00	$ -	$ -	$ -	$ 357,000.00
4)	Chalet Trail[2]	$ -	$ -	$ -		$ 343,784.90	$ -	$ -	$ 343,784.90
5)	Surfacing (PMP)	$ 1,659,946.16	$ 121,821.58	$ 4,149,968.49		$ -	$ -	$ -	$ 5,931,736.23
6)	Curb and Gutter (PMP)	$ 569,720.88	$ 54,847.50	$ 1,496,018.61		$ -	$ -	$ -	$ 2,120,586.99
7)	Old Cedar Watermain	$ 63,092.70	$ -	$ -		$ 85,365.54	$ -	$ -	$ 148,458.24
	TOTAL	**$ 2,292,759.74**	**$ 176,669.08**	**$ 5,645,987.10**	**$ 357,000.00**	**$ 429,150.44**	**$ 1,287,672.50**	**$ 531,088.10**	**$ 10,720,326.96**

1 Park Road Grant funds were received in an amount up to $357,000, but the funds may only be used on the portion of Old Cedar south of the last residential property, into the park.

2 Funding for this trail has yet to be determined. If a funding source is not determined, the Chalet trail may be removed from the project.